

Claims.

- 1). A device for containing and supplying loose materials, comprising:
a support frame (5);
a rigid container (2) mounted on the support frame (5) and exhibiting at least one opening (3);
means (4) for opening or closing the at least one opening (3);
~~wherein the rigid container (2) is rotatably constrained to the support frame (5)~~
~~and wherein~~ the device exhibiting means (11) for rotating the container (2) on the support frame (5) about a rotation axis (x) thereof; the container (2) **being rotatably constrained to the support frame (5) and** being mobile between at least a first position, in which the at least one opening (3) is located in an upper position for loading loose material into the container (2), and at least a second position, in which the at least one opening is located in a lower position for unloading the loose material from the container (2) **characterized in that**
- ~~2). The device of claim 1, wherein the container (2) exhibits a parallelepiped shape~~ **with rounded corners and wherein the at least one opening (3) extends at least partially along an access corner (10a) of the rounded corners (10) of the container (2) and is parallel to the rotation axis (x) of the container (2).**
- ~~2).3) The device of claim 1, wherein the container (2) exhibits a cubic shape.~~
- ~~4). The device of claim 2 or 3, wherein the container (2) exhibits rounded corners (10).~~
- ~~5). The device of claim 2 or 3, wherein the at least one opening (3) extends at least partially along an access corner (10a) of the rounded corners (10) of the container (2).~~

~~6). The device of claim 5, wherein the at least one opening (3) is parallel to the rotation axis (x) of the container (2).~~

~~3).7).~~ The device of claim ~~2 or 3~~ 1, comprising a plurality of openings (3) which are reciprocally aligned along the access corner (10a) of the container (2).

~~4).8).~~ The device of claim 1, wherein the means for rotating (11) comprise: a cogged crown wheel (12) which is solidly constrained to the container (2) and which is coaxially arranged with respect to the rotation axis (x), the crown wheel (12) being predisposed to enmesh with a cogged pinion (13) which is activated by means of a hollow shaft (19) by a motor (14) which is solidly constrained on an external support frame (50) on which the support frame (5) can be housed.

~~5).9).~~ The device of claim ~~8~~ 4, comprising means for moving (17) the pinion (13) from an enmeshed position with the crown wheel (12), in which enmeshed position the motor (14) causes the container (2) to rotate, and a disengaged position from the crown wheel (12), in which the container (2) is stationary.

~~6).10).~~ The device of claim ~~9~~ 5, wherein the means for moving (17) the pinion (13) comprise:

a support plate (21) rotatably coupled with the hollow shaft (19);

at least two actuators (22) having longitudinal axes which are parallel to a motion direction of the pinion (13), connected at an end thereof to the external support frame (50) and at another end thereof to the support plate (21).

~~7).11).~~ The device of claim ~~10~~ 6, comprising means for blocking (18) the crown wheel (12).

~~8).12).~~ The device of claim ~~11~~ 7, wherein the means for blocking (18) the crown wheel (12) comprise a cogged plate (23) associated to the external support frame (50) and mobile between an enmeshed position with the crown wheel (12), corresponding to a disengaged position with the pinion (13), and a disengaged position with the crown wheel (12), corresponding to an enmeshed position with

the pinion (13).

~~9).13)~~ The device of claims ~~from 5 to 7~~ 1, wherein the means (4) for opening or closing the at least one opening (3) comprise:

a small plate (25) mounted internally of the container (2) and mobile between a closed position, in which the small plate (25) closes the at least one opening (3), and an open position, in which the small plate (25) is displaced away from the at least one opening (3); and

means for moving the small plate (25).

~~10).14)~~ The device of claim ~~13~~ 9, wherein the means for moving the small plate (25) comprise:

a shaft (28) mounted in the container (2) at the access corner (10a) thereof and parallel to the access corner (10a); the small plate (25) being solidly constrained to the shaft (28); the shaft (28) being rotatable about a longitudinal axis (Y) thereof in order to displace the small plate (25) between the open position and the closed position;

a mechanism (29) for rotating the shaft (28).

~~11).15)~~ The device of claim ~~14~~ 10, wherein the mechanism (29) for rotating the shaft (28) comprises:

a fork (30) mounted transversally to the shaft (28) and an end (28a) of the shaft (28) which end (28a) is external of the container (2), the fork (30) being predisposed to interact with a first pivot (31) and a second pivot (32);

the first pivot (31) being mounted on the external support frame (50) at a position corresponding to an upper position of the at least one opening (3); the first pivot (31) being mobile between a distanced position from the container (2) and a close position to the container (2), and interfering with the fork (30) when the at least one opening (3) is located in the upper position and determining a displacement of the small plate (25) from the closed position to the open position;

the second pivot (32) being mounted on the external support frame (50) at a lower position of the at least one opening (3); the second pivot (32) being mobile between a position in which it is distanced from the container (2) and a position in which it is close to the container (2), and interfering with the fork (30) when the at least one opening (3) is located in the lower position and determining a displacement of the small plate (25) from the closed position to the open position. ~~12).16)~~ The device of claim ~~14-10~~, comprising elastic return means (34) which act upon the shaft (28) to keep the small plate (25) in the closed position thereof.